

BEFORE THE POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

ITT RAYONIER, INC.

Appellant,

v.

State of Washington DEPARTMENT
OF ECOLOGY,

Respondent.

PCHB Nos. 91-200, 247
and 92-64

FINAL FINDINGS OF FACT,
CONCLUSIONS OF LAW AND ORDER

Procedural History

This matter involves ITT Rayonier, Inc.'s appeal of four Department of Ecology Orders regarding alleged visual opacity violations from the ITT pulp mill in Port Angeles, Washington. Part of these appeals has settled.

On August 21, 1991 ITT Rayonier, Inc. ("ITT") filed an appeal with the Pollution Control Hearings Board contesting Department of Ecology's ("Ecology") issuance of Enforcement Order No. DE-AQI069. The Order was based upon alleged visual opacity violations from the Port Angeles pulp mill's hog fuel boiler. This appeal became PCHB No. 91-200.

On November 27, 1991 ITT filed an appeal contesting Ecology's issuance of Enforcement Order No. DE-AQI100 regarding the Port Angeles facility's sulfur recovery boiler. The Order alleged there had been opacity violations. This appeal became PCHB No. 91-247.

FINAL FINDINGS OF FACT,
CONCLUSIONS OF LAW AND ORDER
PCHB NOS. 91-200 & 247 & 92-64 (1)

1 On December 18, 1991 Ecology issued Penalty Order No. DE91-AQ119
2 (\$40,400) for alleged opacity violations from June 25, 1991 through
3 October 3, 1991 from the hog fuel boiler and the sulfur recovery
4 boiler. ITT filed with Ecology an Application for Relief from the
5 penalty. On February 27, 1992 Ecology denied the request. On March
6 3, 1992 Ecology issued Penalty Order No. DE-AQI040 (\$10,000) for other
7 alleged opacity violations from the facility's hog fuel boiler. These
8 two Orders were jointly appealed to the Board and jointly numbered
9 PCHB No. 92-64.

10 By agreement of the parties, the three appeals (of the four
11 Orders) were consolidated for hearing. Hearing briefs were filed.
12 The hearing on the merits began on April 15, 1992 in Lacey, Washington.

13 Present for the Pollution Control Hearings Board were
14 Attorney Member Judith A. Bendor, Presiding; Chairman Harold S.
15 Zimmerman, and Member Annette McGee. Appellant ITT Rayonier was
16 represented by Attorneys Timothy Butler and Annette Hayes (Heller,
17 Ehrman, White & McAuliffe; Seattle). Respondent Ecology was
18 represented by Assistant Attorney General Mary Sue Wilson. Court
19 reporters affiliated with Gene S. Barker and Associates (Olympia) took
20 the proceedings.

21 Argument on a Motion for Partial Summary Judgment was held. (See
22 Order Granting Partial Summary Judgment for details.) By preliminary
23 ruling that day, later confirmed by Order, the Board concluded that as
24 a matter of law, the maximum opacity penalty Ecology could assess

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1 under WAC 173-400-230(2) was \$400 each day for each emissions unit,
2 not \$10,000. The parties adjourned to discuss settlement, reached
3 agreement on several issues, and announced the results to the Board.
4 The parties entered a stipulated Revised Statement of the Case on
5 April 29, 1992.

6 The hearing reconvened on April 30, 1992 and continued on May 1,
7 1992. The Board, the parties' representatives, and the court reporter
8 were the same as before. Opening statements were made. Witnesses
9 testified and exhibits were admitted. Closing argument was made.
10 Revised hearing briefs were filed. On May 20, 1992 with the filing of
11 additional legal argument on the motion. Those Board Members who
12 missed select portions of the hearing have reviewed tape recordings of
13 the proceedings.

14 For the matters still in contention, and from the foregoing, the
15 Board now makes these:

16 FINDINGS OF FACT

17 I

18 Hog Fuel Boiler

19 The ITT pulp mill at Port Angeles produces pulp using a sulfite
20 pulping process. A hog fuel boiler at the mill burns wood waste and
21 sludges from the wastewater treatment system. The boiler ultimately
22 releases its emissions into the outside air through three stacks.
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25
26 FINAL FINDINGS OF FACT,
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27

Inside the plant, gases and particles from the boiler go to a multiclone air pollution system for removal of larger particles. The remaining gases and particles go to three electrostatic gravel bed precipitators, which release to the outside air through one of three stacks. The three stacks are in a straight line, from north to south, about nine feet from each other.

Sulfur Recovery Boiler

II

The sulfur recovery boiler burns spent pulping liquor, recovering energy. Previously the liquor had been released to the waters of the state.

The sulfur recovery boiler releases gases and particles. These are first treated in a cooling absorption tower, where sulfur dioxide is recovered for re-use. The gaseous stream that leaves the tower still contains some sulfur dioxide and particles, and is saturated with water. This mixture passes through a demister pad to remove some of the water, and then proceeds to the demister system (brand name: Brinks). The demister system is designed to remove small particles and small water droplets.

III

At the ITT Port Angeles facility, the system consists of six demisters connected in parallel. Each demister is about 20 feet in diameter and 20 feet high. At most five demisters are operating at

1 one time, while one is off-line being cleaned with acid condensate to
2 dissolve and remove particles. If one of the remaining five operating
3 demisters is not working properly, it, too, can be taken off-line.
4 Then only four demisters would be operating. The system is designed
5 so it can be entirely bypassed.

6 IV

7 Within each demister there are 21 "candles". Each candle is 18
8 to 24 inches in diameter. Glass fiber on each candle is four to six
9 inches thick, which serves to filter out small particles and entrained
10 water. The candles' open side is on the bottom, where the gases and
11 particles enter. (The candles are placed upside down, like inverted
12 glasses.)

13 The relative pressure differential of the demisters is checked
14 six times each day, to determine, in part, if the system is operating
15 properly. A written log is kept of this check. Overall particulate
16 monitoring is also done, which can provide some information to assess
17 whether the demisters are operating properly.

18 V

19 Semi-annually the plant is shut down and each demister is
20 checked. Each candle is given a pressure test to determine if it is
21 properly working. As the candles age, the glass fibers shrink. This
22 shrinkage affects the candles' performance. Core samples of the
23 fibers are taken and scanned by electron microscopy, to determine if
24

1 significant deterioration has occurred.

2 The average life span of a candle is three years. If the
3 semi-annual check reveals a particular candle is not working properly,
4 a plate is to be put under it and the candle bypassed, i.e. the
5 gas/particle stream goes to the remaining candles. At some point, all
6 the candles are replaced at the same time.

7 Opacity

8 VI

9 Opacity is defined in Washington regulation as:

10 the degree to which an object seen through a plume is
11 obscured, stated as a percentage. WAC 173-400-030.

12 More generally, it is the amount of light obscured when one looks at
13 something.

14 The opacity in a plume is dependent upon the amount, size and
15 nature of particles in the plume. Some particles are formed during
16 combustion, while others exist because of incomplete combustion. Other
17 particles are formed in the plume itself, from the gases emitted.
18 If the particles and gases are not first collected by pollution
19 control equipment, opacity can result.

20 Poorly operated and maintained equipment can increase opacity.

21 VII

22 In Washington State, opacity readers are certified on a regular
23 basis. To pass the certification test, a reader is required to have
24 every reading within 15% of a smoke machine's actual reading, and the

1 average of all readings must be within 7 1/2%. There is at present no
2 specific training for reading multiple plumes.

3 VIII

4 When a plume leaves a stack, there is a tendency for it to bunch
5 up and form a cone or cylinder. If three to four stacks are close
6 together, their plumes tend to bunch up and combine.

7 IX

8 **Stipulated Facts:**

9 On six occasions between June 26, 1991 and December 1991,
10 certified opacity readers from Ecology and the Olympic Air Pollution
11 Control Authority recorded visual opacity readings which exceeded the
12 20 percent opacity standard for the hog fuel boiler. The readers
13 positioned themselves with the sun within a 140 degree sector to their
14 backs, so their line of vision was approximately perpendicular to the
15 plume direction, south of the three stacks.

16 On these occasions, the readers were unable to determine whether
17 a single plume, or multiple plumes one behind the other, were being
18 observed. From the opacity readers' perspectives, however, they were
19 observing what appeared to be a single plume.

20 X

21 In the 1970s the Department of Ecology developed Source Test
22 Methods 9A and 9B, for the visual determination of opacity. Ecology
23 derived the test methods after consulting existing Environmental
24

1 Protection Agency Guidelines for Evaluation of Visual Emissions, and
2 other states' methods including those used to certify opacity
3 readers. (The EPA's Quality Assurance Handbook for Air Pollution
4 Measurements was adopted later, in February 1984.)

5 Washington Source Test Methods 9A (three minute test) and 9B (six
6 minute test) provide in relevant part:

7 The qualified observer shall stand at a distance
8 sufficient to provide a clear view of the emissions with
9 the sun oriented in the 140 degree sector to his [sic.]
10 back. Consistent with maintaining the above
11 requirement, the observer shall, as much as possible,
12 make his observations from a position such that his line
13 of vision is approximately perpendicular to the plume
14 direction, when observing opacity of emissions from
15 rectangular outlets (e.g., roof monitors, open
16 baghouses, noncircular stacks), approximately
17 perpendicular to the longer axis of the outlet. The
18 observer's line of sight should not include more than
19 one plume at a time when multiple stacks are involved,
20 and in any case, the observer should make his
21 observations with his line of sight perpendicular to the
22 longer axis of such a set of multiple stacks (e.g. stub
23 stacks on baghouses).

24 Exhs. A-1 & 2.

25 EPA's Method 9 is identical. 40 CFR Part 60, Appendix A, Method 9.

26 XII

27 Opacity releases from a facility can be transitory, a fleeting
occurrence. When the inspector is on the scene, it may not be
physically possible at the same time to be in all the positions listed
in the Methods.

XIII

Reading opacity is very sensitive to the position of the sun.

1 One cannot accurately read a plume if the sun is not within 140
2 degrees behind the reader's back.

3 Water in a plume increases opacity. But such opacity is not to
4 be part of the total opacity figure for purposes of a violation. See
5 WAC 173-400-040(1)(b).

6 It is more accurate to read a plume perpendicular to its
7 direction of movement. This enables the reader to better determine at
8 what point in the plume any steam has dissipated, and to read the
9 plume beyond that point. This position also allows the reader to look
10 through the plume's width, not down its length. (See Finding of Fact
11 XIV, below, discussing path length.)

12 Accuracy of a reading is generally enhanced if one reads a plume
13 against a contrasting background.

14 XIV

15 If all other factors remain constant, and there is opacity in the
16 plume, reading increased path length generally tends to increase the
17 opacity reading. For example, if the stack were rectangular in shape,
18 the opacity observed would likely be higher if one looked through the
19 long width of the rectangular plume, rather than the short distance.
20 Path length remains the same only with a perfectly round stack.

21 There are situations when there are multiple stacks in a row.
22 If one reads opacity through the long axis, this can complicate the
23 reading, leading to a different reading than if one read only one
24 plume. The degree of difference is difficult to assess, in part

1 because if one changed one's position so as to read individual plumes,
2 the sun position might be different, the background could change, and
3 so forth. But, if one were to assume all the other factors did not
4 change, and there are circular stacks, then if one were to read
5 several plumes at once as if they were one, this could result in a
6 higher observed opacity than if one were to read only one plume.

7 Sulfur Recovery Boiler History

8 XV

9 On January 11, 1973, ITT Rayonier filed with Ecology a Notice of
10 Construction for the sulfur recovery boiler. The filing included a
11 commitment to meet applicable particulate emission limits by
12 installing auxiliary particulate pollution control equipment. Ecology
13 did not issue an Order of Prevention of Construction within one month,
14 and therefore by operation of law, construction could proceed.

15 XVI

16 Effective July 16, 1973, RCW 70.94.152 had been amended to
17 require new sources of air contaminants to have all known, available
18 and reasonable emissions controls ("AKART"). Ecology concluded this
19 requirement applied to the ITT sulfur recovery system at Port Angeles.

20 On October 9, 1973, the company met with Ecology and proposed to
21 limit emissions without installing the auxiliary equipment. Ecology
22 had concluded this proposal was not encompassed under the previous
23 Notice of Construction, and was therefore not otherwise authorized by
24 the Department's previous inaction.

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The parties discussed an ITT sulfur resource recovery facility being built in Quebec, Canada. The facility was designed to operate without auxiliary particulate control equipment, and was scheduled to be in operation before the Port Angeles one. Ecology stated that if the Quebec facility were to be used to determine if the Port Angeles facility could proceed without auxiliary equipment, then Ecology would use "no visible emissions" as the measure, equivalent to what a mist eliminator would achieve. Exh. A-24. Sulfur recovery facilities were already operating with emissions of less than 10% visual opacity.

The parties met again on December 6, 1973, to discuss ITT's proposal to use in-process controls, rather than auxiliary particulate control equipment. Ecology stated it would require prompt ordering of the equipment if the Quebec mill did not achieve a nearly invisible plume. Exh. A-25.

XVII

On January 8, 1974, Ecology issued Order No. DE 74-9. The Order was based on all known available and reasonable technology, AKART. The Order limited visual emissions from the Port Angeles sulfur recovery system to not exceed 10% opacity, except for uncombined water vapor. Particulate emissions were limited to 2.5 pounds per ton of pulp produced. The Order approved construction without auxiliary particulate pollution control equipment, provided emissions limitations would not be exceeded. The Order allowed this to be

1 demonstrated initially by the Quebec facility.

2 XVIII

3 The Quebec facility's construction and operation did not proceed
4 in the expected time frame. ITT made an additional technical
5 presentation to DOE about the Port Angeles system in August 1974.
6 Ecology issued Modified Order No. DE 74-9 on October 1, 1974,
7 requiring the ordering of auxiliary pollution equipment, but still
8 providing ITT an opportunity to demonstrate the equipment need not be
9 purchased and installed. The Order was again based on AKART.
10 Exh. A-29.

11 The Order stated in part:

12 II. DETERMINATION

13 [...] concerning particulate emissions control at the
14 mill, the Department determines:

15 The proposed project will be deemed to accord with
16 Chapter 70.94 RCW and all applicable regulations and to
provide all known, available and reasonable methods of
emission control, if

17 1. Visual emissions from the recovery system, as
18 defined by WAC 18-38-020(8), at no time exceed ten (10)
percent opacity, except for uncombined water vapor,
19 [...].

20 III. ORDER

21 The Department hereby orders that:

22 1. The Corporation shall order the auxiliary
particulate control equipment [...]

23 2. After October 1, 1975, the emissions limitations
24 set forth in II, above, may at no time be exceeded.

3. The Corporation must demonstrate to the Department's satisfaction, that operations at its Port Angeles, Washington facility have been successful in meeting the emissions limitations set forth in II above, without the use of auxiliary particulate control equipment. Exh. A-29.

XIX

An in-stack monitor was installed to measure particulate emissions and opacity.

ITT was not able to prove that auxiliary equipment was not necessary, and the Brinks demisters were purchased and installed. Permittee had provided information to Ecology that with demisters, the plume from the recovery furnace would have an opacity from 0 to 10%.

XX

By October 1975, ITT determined the in-stack monitor was not accurately reporting opacity from the sulfur recovery boiler, because the plume was saturated with water.

XXI

On March 29, 1977, ITT sent to Ecology a detailed "Monitoring and Reporting Program" for the facility, to comply with Chapt. 173-410 WAC. In its submittal, ITT stated that Part II of the Program:

describes several proposed changes which will bring our existing monitoring and reporting program into conformity with the revised regulations. Exh. A-33; emphasis added.

1 ITT's proposed Part II for the sulfur recovery unit stated:

2 PROPOSED MONITORING ADDITIONS OR DELETIONS

3 [...]

3. Opacity:

4 a. Continuous opacity monitoring equipment for compliance
5 purposes is not available because of a wet plume. Instead,
6 report the operation mode of the Brinks demisters on a daily
7 basis as the number of hours on/off line. Typical plume opacity
8 with Brinks on-line is 0 - 10% after dissipation of water vapor.
With the Brinks off-line, the typical opacity is greater than
60%. In-stack EDC opacity monitor records Brinks on-line as
opacity as 90 - 95%, and Brinks off-line opacity as 100%.
Exh. A-33; emphasis added.

9 XXII

10 On February 28, 1978, Ecology issued Regulatory Order No. DE
11 78-101, Exh. A-34. At page three, (see Attachment A to this
12 decision), the emissions limitations show the opacity limit to be 10%,
13 and the test method for self-monitoring to be Monitoring Brinks
14 Demisters and references Appendix B.

15 A Fact Sheet was included with the Order. It states in pertinent
16 part:

17 FACT SHEET

18 [...]

19 HISTORY OF AIR EMISSION CONTROL PROGRAM

20 [...]

2. Particulate

21 The only major particulate source is the recovery furnace,
22 which averages about 1.1 pound per ton of pulp produced.
Demisters are used to keep the emissions below the state
23 standard of 2.5 pounds per ton.

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Opacity from the recovery furnace stack is normally around 5 percent in contrast to the state standard of 10 percent. [...]

Appendix B of the Order (see Attachment A to this decision) is entitled: Approved Test Methods. It states in part:

1. EDC Monitor and Monitoring Brinks Demisters

The recovery system stack shall be monitored for opacity by reporting the operation of the Brinks Demisters. When the demisters are on line, the 10 percent opacity standard is met.

[Exh. A-34, emphasis added.]

XXIII

On February 29, 1980, Ecology issued Regulatory Order No. DE 80-196 for the sulfur recovery boiler. (Exh. A-4; see excerpts at Attachment B to this opinion.) The Order had a Part A, with more extensive General Conditions; a Part B, including Specific Provisions, and an Appendix B, Approved Test Methods. No fact sheet was included.

There were some changes from Regulatory Order DE 78-101. For example, under the Part B. Specific Provisions (1) Emissions, this text is new:

Subject to the terms of this order, the sources described herein shall comply with the emission limitation for the pollutant indicated, and emissions shall be determined using the average period, sampling frequency, method and reporting frequency indicated.

There are other minor changes, as can be seen from the attached excerpt; Attachment B to this Opinion. Appendix B remained the same as in Order 78-101.

1 XXIV

2 Ecology's standard operating procedure in issuing such orders was
3 to list requirements the permittee or licensee must comply with, not to
4 list its own inspection or enforcement practices.

5 XXV

6 Any Conclusion of Law deemed to be a Finding of Fact is hereby
7 adopted as such.

8 From these Findings of Fact, the Board enters these:

9 CONCLUSIONS OF LAW

10 I

11 The Pollution Control Hearings Board has jurisdiction over these
12 parties and these issues. Chapt. 43.21B and 70.94 RCW.

13 II

14 The legal issues remaining for this Board to adjudicate are:

15
16 1. When an emissions source has three stacks that are in a line,
17 and an opacity reading is taken with the sun behind the observer's
18 back (within 140 degrees), and the observer is approximately
19 perpendicular to the plume direction, but the observer was unable
to determine whether s/he was observing a single plume or multiple
plumes one behind another, can such a reading support an opacity
violation under Washington law?

20 2. For the resource recovery boiler, if the demisters are
21 on-line, what opacity level does the boiler have to meet under the
law and Regulatory Order No. DE 80-196?

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III

Under General Regulations for Air Pollution Sources, the general standards for maximum emissions at WAC 173-400-040 state in pertinent part:

All sources and emissions units are required to meet the emission standards of this chapter. Where an emission standard listed in another chapter is applicable to a specific emissions unit, such standard will take precedent over a general emission standard listed in this chapter.

[...]

(1) Visible emissions. No person shall cause or permit the emission for more than three minutes, in any one hour, of an air contaminant from any emissions unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent opacity except:

[...]

(b) When the owner or operator of a source supplies valid data to show that the presence of uncombined water is the only reason for the opacity to exceed twenty percent.

(c) When two or more sources are connected to a common stack, ecology or the authority may allow or require the use of an alternative time period if it is more representative of normal operations.

(d) when an alternate opacity limit has been established per RCW 70.94.331(2)(c). [Emphasis added].

IV

An "emission standard" is:

an allowable rate of emissions, level of opacity, or prescribing equipment or operating conditions as set forth in a regulation or regulatory order to assure continuous emission control. WAC 173-400-030(23).

We conclude that opacity standards are emission standards.

V

A "source" is defined as:

all of the emissions unit(s) including quantifiable fugitive emissions, which are located on one or more contiguous or adjacent properties under the control of the same person(s) and those activities that are secondary to the production of a single product of a functionally related group of products.
WAC 173-400-030(63).

We conclude the entire ITT Port Angeles facility is a "source" under WAC 173-400-030(63).

VI

An "emission unit" is":

any part of a source which emits or would have the potential to emit any pollutant subject to regulation.
WAC 173-400-030(24).

We conclude the hog fuel boiler in its entirety is an "emission unit" under WAC 173-400-040, -030(24), and -070.

Opacity

VII

For convenience, we now repeat the Washington Source Test Methods:

The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140 degree sector to his [sic.] back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction, when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case, the observer should make his

1 observations with his line of sight perpendicular to the
2 longer axis of such a set of multiple stacks (e.g. stub
3 stacks on baghouses).
4 Exhs. A-1 & 2.

5 VIII

6 The legal issue is: where is opacity to be determined?

7 WAC 173-400-040(1) states:

8 at the emission point, or within a reasonable distance of the
9 emission point [...]

10 We have concluded that an opacity reading of a combined plume can
11 be a valid reading. Kaiser Aluminum & Chem. Corp. v. Department of
12 Ecology and PSAPCA, PCHB No. 80-168; St. Regis Paper Co. v. PSAPCA,
13 PCHB No. 80-224.

14 Opacity releases from a facility can be transitory. When the
15 inspector is on the scene, it may not be physically possible to be at
16 the same time in all the positions listed in the Methods.

17 The parties have not addressed whether the Methods themselves as
18 a whole are mandatory, i.e. rise to the level of adopted regulation.
19 We therefore decline to reach a conclusion in that regard. For
20 purposes of this analysis only, it will be assumed they are mandatory.

21 In the Methods, the words/phrases "shall", "shall as much as
22 possible", and "should" are all used in the same paragraph. The
23 paragraph is written in the present tense.

24 We return again to the language of Method 9A, which specifies an
25 array of positions with varying degrees of importance. In the context

1 these Methods, we conclude the different words/phrases have different
2 meanings. See, State v. Rains, 87 Wn.2d 626 (1976). Only "shall" is
3 mandatory, with the most important position being the sun within an
4 arc of 140 degrees of the inspector's back.

5 After meeting this position, then next in importance, as much as
6 possible while still keeping the sun within the prescribed arc, the
7 observer shall be perpendicular to the plume direction. This position
8 is important, as reflected in the "shall" language. But if not
9 possible while still maintaining the proper sun position, then the sun
10 position is to be observed.

11 Lastly, "should" is advisory, and of lesser importance.

12 Additionally, one is supposed to read a plume beyond the point of
13 uncombined water, which may be a reasonable distance from its emission
14 point.

15 We conclude the readings described in Finding of Fact IX, above,
16 can sustain an opacity violation under Washington law.

17 Whether violation(s) did occur, however, has not been litigated
18 and therefore is not determined. At any such adjudication, the
19 composite effect of an inspector's position is weighed to determine if
20 the reading was reliable. See, International Paper Co. v. SWAPCA, PCHB
21 Nos. 77-55, et al.

1 Sulfur Recovery Unit Opacity Limit

2 IX

3 This Board has to determine what opacity emission standard
4 applies to the ITT Port Angeles sulfur recovery boiler.

5 We conclude that Order 80-196's opacity limits are based on
6 AKART. AKART in 1973-74 was shown to be no visible emissions, or a
7 maximum of 10% opacity.

8 Appellant ITT contends the plain language of the last sentence of
9 Appendix B. 1 of the Order means that when the demisters are on-line,
10 only visual opacity readings greater than 35% constitute opacity
11 violations.

12 Respondent Ecology contends the Order requires the 10% standard
13 be met, and under Appendix B the company is fulfilling a monitoring
14 requirement when it reports the demisters' status.

15 X

16 We conclude that when Order DE 80-196 is read as a whole on its
17 face, the Order is ambiguous. The Order's Part B lists the opacity
18 emissions limitation as 10%. Yet there is a sentence in Appendix B
19 about the demisters on-line and the 10% opacity standard being met.

20 Because there is ambiguity, the Board is required to construe the
21 Order. In doing so, the Order is to be read as a whole, with each
22 part construed so the Order is in harmony. See, Sutherland, Statutory
23 Construction, Vol. 2A, Sec. 46.05, p. 90. The Board has to ascribe

1 meaning to the context of particular sentences. See, id. If a
2 particular sentence is in conflict with the general meaning and
3 purpose of the order, then the sentence is to be construed so as to be
4 consistent with the order's purpose. See, Sutherland, supra, at p. 92.

5 XI

6 In construing Orders, the Board is required to determine the
7 purpose and intent of the issuing agency. ITT Rayonier v. Ecology,
8 91 Wn.2d 682, 686, 586 P.2d 1155 (1978).

9 We believe the opacity limit was not negotiated between the
10 parties. If the Order were negotiated, the Board would have to
11 determine the intent and purpose of both parties. ITT, supra, at
12 687.

13 XII

14 Under either approach, however, we conclude the opacity limit is
15 10%, and reporting the demisters' status is a company monitoring
16 provision. We turn to the history of the Order's development.

17 Nineteen years ago opacity control technology to meet no visible
18 emissions, or no more than 10%, was known, available and reasonable.
19 Other sulfur recovery facilities in 1973 met either the no visible
20 emissions level, or a maximum of 10% opacity.

21 The company was fully aware when they embarked to add the sulfur
22 recovery unit, the opacity limit was 10%.

23 Two previous orders for this same unit had a 10% opacity limit:
24 Order DE 74-9 issued January 8, 1974, and revised Order 74-9 issued in

1 October 1, 1974.

2 Under both these Orders, the company had a duty to self-monitor
3 for opacity. No party has suggested the self-monitoring in Order 74-9
4 somehow replaced Ecology or the local air agency's authority to
5 conduct opacity inspections.

6 After the unit was installed under modified Order DE 74-9, ITT
7 discovered its self-monitoring equipment for opacity was not working
8 due to saturated water in the plume. As a result, ITT itself
9 suggested the company fulfill its duty to monitor for opacity by
10 reporting the status of the demisters:

11 Continuous opacity monitoring equipment for compliance
12 purposes is not available because of a wet plume.
13 Instead, report the operation mode of the Brinks
14 demisters on a daily basis as the number of hours on/off
15 line. [Exh. A-33; see Finding of Fact XXI, above, for a
16 longer quote.]

17 As a result, the two subsequent orders issued.

18 There has been no evidence presented, whatsover, that there was
19 any intent by either party for these two subsequent orders to change
20 the status quo, to change the opacity limits recited in the previous
21 orders. Rather, the orders were changed to accommodate the
22 limitations of the ITT self-monitoring system.

23 Given all the evidence presented in this case, we construe the
24 opacity limit to be 10%, and the reporting of the demisters to be a
25 company self-monitoring provision. Such a construction is harmonious

1 with the rest of the Order, previous orders, the intent of Ecology,
2 and even the intent of ITT.

3 Moreover it is consistent with the requirements for all known
4 available and reasonable technology and the State Clean Air Act.

5 Appellant's theory would allow the company, 19 years after it
6 knew there was a 10% opacity limit, to take unfair advantage of a
7 technical drafting ambiguity.

8 XIII

9 Any Finding of Fact which is deemed a Conclusion of Law is hereby
10 adopted as such.

11 From these Conclusions of Law, the Board enters the following:
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ORDER

1. The hog fuel boiler visual opacity readings taken from June to December 1991 as a matter of law can support an opacity violation under Washington law. Whether the readings support any violations is a question of fact not litigated, and therefore this Board makes no such determination.

2. Order DE 80-196 for the resource recovery facility limits visual opacity to no greater than 10%. The status of the demisters is a monitoring requirement, not an opacity limit.

DONE this 19th day of June, 1992.

POLLUTION CONTROL HEARINGS BOARD


JUDITH A. BENDOR, Presiding


HAROLD S. ZIMMERMAN, Chairman


ANNETTE S. MCGEE, Member

Attchs.

B. Specific Provisions

(1) Emissions

Subject to the terms of this order, the sources described herein shall comply with the emission limitation for the pollutants indicated, and emissions shall be determined using the average period, sampling frequency, method and reporting frequency indicated.

<u>Source</u>	<u>Pollutant or parameter</u>	<u>Limitation</u>	<u>Averaging Period</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>	<u>Test Method</u>
a. Recovery Furnace	Particulates Opacity	2.5 lb/ADUT 10 %	Monthly 6 min/hour	Quarterly Continuous	Quarterly Monthly(4)	DOE Method 5 EDC & Brinks Status(4)
	SO ₂	300 ppm	Hourly	Continuous	Monthly	EDC DIGA-1400
b. Acid Plant, Blow System, Miscellaneous sources(2)	SO ₂ SO ₂	3000 lb/day 165 lb/hr	Daily Hourly	Continuous Continuous	Monthly Monthly	DOE Approved Monitor(4)
c. Mill	SO ₂	15 lb/ADUT(3)	Monthly	---	Monthly	Calculated

(1) Reporting Excursions only

(2) Miscellaneous Sources shall include washer vents, tank vents, and other sources as described in the mill system description.

(3) Not including SO₂ from oil burning

(4) See Appendix B

EMISSION LIMITATION AND MONITORING SCHEDULE

Source	Parameter	Limitation	Averaging Period	Sampling Frequency	Reporting Frequency	Test Method***
Recover Furnace	Particulate Opacity	2.5 lb/ADUT 10%	Monthly 6-minute per 60 minutes	Quarterly Continuous	Quarterly Monthly *	DOE Test Method 5 LDC Monitor and Monitoring Brink's Detectors.
	Sulfur Dioxide	300 ppm	Hourly	Continuous	Monthly	LDC Monitor Model D16A-1491.
Acid Plant (West Limerock Tower)	Opacity	35%	6-minute per 60 minutes	Monthly	Monthly *	DOE Test Method 9B
	Sulfur Dioxide	800 ppm	Hourly	Continuous **	Monthly	Dynasciences Model 122
Siox System (North and South Limerock Towers)	Sulfur Dioxide	0.2 lb/ min/ADUT	15-minute	Continuous **	Monthly	Dynasciences Model 122
	Sulfur Dioxide	20 lb/ADUT	Monthly	---	Monthly	Calculation

*Report excursions only

**Monitor time-shared between the three limerock towers

***See Appendix B

Attachment A

APPENDIX B

APPROVED TEST METHODS

1. EDC Monitor and Monitoring Brinks Demisters

The recovery system stack shall be monitored for opacity by reporting the operation of the Brinks Demisters. When the demisters are on line, the 10 percent opacity standard is met.

2. EDC Monitor, Model DICA-1400

This monitor is an approved test method for SO₂.

3. Dynasciences Model 122

This monitor is an approved test method for SO₂.

4. DOE Method 5 and 9B

This method is described in "Source Test Manual Procedures for Compliance Testing," State of Washington Department of Ecology, May 1977.